

SOV/124-58-11-13184

Investigation of the Stress Distribution in the Base (cont.)

which arises upon exposure of the swelling stratum underlying the working, and a plastic-flow deformation, which results from the transmittal of the overburden to the stratum under examination via the pillars. From the ratio of the moduli of elasticity, which in the case of coal and soil is 200, it is deduced that upon exposure of the clay substantial heaving must occur, whereupon elevated pressure is exerted upon the timbering. The maximal compressive-stress ( $\sigma_y$ ) concentration occurs at the edges of a pillar, the greatest  $\sigma_x$ -stress concentration is found at a depth that is one-half the width of the working. A concentration of tangential stresses occurs along the edges of the working, underneath the pillars. The influence of the working extends to a depth that is twice its width. Bibliography: 14 references.  
G. I. Ter-Stepanyan

Card 2/2

KUPERMAN, P.I.; GRYAZNOV, N.S.; MOCHALOV, V.V.; FROLOV, V.V.; MUSTAFIN, F.A.;  
 PUSHKASH, I.I.; SLAVGORODSKIY, M.V.; LAZAREV, B.L.; BORISOV, V.I.;  
 Primali uchastie: CHERKASOV, N.Kh.; ZABRODSKIY, M.P.; RYTCHENKO,  
 A.I.; RUTKOVSKAYA, Ye.N.; SAITBURGANOVA, N.I.; SHTAGER, A.A.;  
 SHISHLOVA, T.I.; BUDOL', Z.P.; MEN'SHIKOVA, R.I.; GORELOV, L.A.;  
 AGARKOVA, M.M.; KOUROV, V.Ya.; KOGAN, L.A.; BEZDVERNYI, G.N.;  
 POKROVSKIY, B.I.

Effect of the lengthening of the coking time on the coke quality and  
 testing of coke in the blast furnace process. Koks i khim. no.9:  
 23-28 '63. (MIRA 16:9)

1. Vostochnyy uglekhimicheskiy institut (for Kuperman, Gryaznov,  
 Mochalov, Kogan, Bezdvernyy, Pokrovskiy). 2. Ural'skiy institut  
 chernykh metallov (for Frolov). 3. Nizhne-Tagil'skiy  
 metallurgicheskiy kombinat (for Mustafin, Pushkash, Slavgorodskiy,  
 Lazarev, Cherkasov, Zbrodskiy, Rytchenko, Rutkovskaya,  
 Saitburganova, Shtager, Shishlova, Budol', Men'shikova).
4. Koksokhimstantsiya (for Borisov, Gorelov, Agarkova, Kurov).  
 (Coke-Testing)

L 11270-63

ACCESSION NR: AP3003721

8/0109/63/008/007/1199/1209

AUTHOR: Shtager, A. P.; Stafeyev, V. I. 44

TITLE: Volt-ampere characteristics of a double-base diode

SOURCE: Radiotekhnika i elektronika, v. 8, no. 7, 1963, 1199-1209

TOPIC TAGS: double-base diode, volt-ampere characteristics, emitter inverse current, cutoff voltage, residual voltage, negative resistance, differential resistance

ABSTRACT: On the basis of the previous investigations of one of the authors, analytical expressions for negative resistance and cutoff and residual voltages are derived for double-base diodes. In order to verify the theoretical data obtained, a series of n-type germanium double-base diodes with a resistivity of  $40 \text{ cm} \times \text{cm}$  and an inverse current of the emitter junction on the order of  $10 \text{ } \mu\text{amp}$  has been developed. Cutoff voltage depended to a large degree on the thickness of the initial germanium plate and usually, at voltages between bases of 8 to 10 v, was on the order of 5-7 v. The negative resistance region became apparent in the region of negative emitter currents; the value of the negative resistance was on

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ACCESSION NR: AP3003721

the order of 20—30 ohm. The cut in current was on the order of 10  $\mu$ amp, and the cutoff current was approximately 1 mamp. The differential resistance of the actuated diode was 20—60 ohm, while that of the cutoff diode was on the order of 1 Mohm. It was concluded that: 1) resistance between the emitter and collector is modulated by the emitter current and does not depend on the electric field; 2) the switching on of the diode occurs during the inverse current flow, which is about equal to the saturation current; 3) cutoff voltage is determined by the resistance between the emitter and the collector and by the current in the base circuit; 4) residual voltage is determined by the effective lifetime of the carriers in the device (since double-base diodes are manufactured from thin semiconductor plates, the carrier lifetime is determined mainly by the rate of surface recombination); 5) negative resistance of experimental models was on the order of several tens of kohm; and 6) differential resistance with the diode switched on was on the order of 40—60 ohm, which was higher than the values predicted on the basis of theory by factors of 1.5—2.0. Orig. art. has: 10 figures and 13 formulas.

ASSOCIATION: none

Card 2/3

- 7 (2/56) -

L 19057-65 EWT(1)/EWG(k)/EEG(k)-2/T/EEG(b)-2/EWA(h) Pm-1/Pz-6/Pab IJP(G)/  
ASD(a)-5/RAEM(c)/AFWL/ESD(t)/ESD(c)/ESD(d)  
ACCESSION NR: AP4040913 S/0109/64/009/006/1034/1039

AUTHOR: Karakushan, E. I.; Stafeyev, V. I.; Shtager, A. P.

TITLE: Two-base magnetodiode

SOURCE: Radiotekhnika i elektronika, v. 9, no. 6, 1964, 1034-1039

TOPIC TAGS: semiconductor, semiconductor device, semiconductor diode,  
double base diode, magnetodiode, double base magnetodiode

ABSTRACT: The magnetodiode is characterized by  $d/L = 3$  to  $5$ , while in conventional diodes  $d < L$ , here,  $d$  is the distance between the p-n junction and the ohmic contact and  $L$  is the diffusion-displacement length. The double-base magnetodiode can be designed with a sensitivity to a magnetic field higher than that of the conventional magnetodiode. Symmetrical and nonsymmetrical double-base magnetodiodes were prepared from n-Ge with a resistivity of  $40 \text{ ohm-cm}$ . These characteristics were measured: (1) Base-to-base: current vs. voltage at

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L 19057-65

ACCESSION NR: AP4040913

0, 2, 3, 4, 5, and 6 kgauss; base-to-base resistance; breakdown voltage, breakdown current, and minimum voltage vs. magnetic flux density; (2) Emitter-to-principal-base: current vs. voltage at the above gauss values in both symmetrical and nonsymmetrical diodes; breakdown voltage, cutoff voltage, residual voltage, and residual resistance vs. magnetic flux density. For better characteristics, the use of a high-resistivity and high carrier-mobility material, such as GaAs, is recommended. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 05Oct62

ENCL: 00

SUB CODE: EC

NO REF SOV: 007

OTHER: 001

Card 2/2

ACCESSION NR: AP4040914

S/0109/64/009/006/1040/1046

AUTHOR: Shtager, A. P.; Stafeyev, V. I.

TITLE: N-shaped characteristic of the double-base diode

SOURCE: Radiotekhnika i elektronika, v. 9, no. 6, 1964, 1040-1046

TOPIC TAGS: semiconductor, semiconductor diode, double base diode, N shaped characteristic

ABSTRACT: Assuming that: (a) the model is single-dimensional, (b) the semiconductor has a near-intrinsic conductivity, (c) the emitter is of the point-contact type, and (d) the injection coefficient is 1, these formulas are developed to describe the current-voltage characteristic:

$$\text{base-to-base voltage } V_{bb} = \left[ V_e - \frac{kT}{q} \ln \left( \frac{I_e}{I_s} + 1 \right) \right] \left( \frac{R_{n1}}{R_{n1}} + 1 \right) - I_e R_{n1}$$

$$\text{base-to-base current } I_{bb} = \left[ V_e - \frac{kT}{q} \ln \left( \frac{I_e}{I_s} + 1 \right) - I_e R_{n1} \right] / R_{n1}$$

where  $V_e$  and  $I_e$  are the emitter voltage and current,  $I_s$  is the saturation current

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ACCESSION NR: AP4040914

$R_{11}$  is the resistance between the emitter and the principal base, and  $R_{12}$  is the resistance between the emitter and the second base. Double-base symmetrical and nonsymmetrical diodes described in the authors' earlier work (Rad. i elektronika, 1963, 8, 7, 1199) were tested; their p-n junction saturation current was about 20 microamp and  $l_1/L \approx 3$ . Due to the finite size of the emitter in the real diodes, the theoretical and experimental I/V N-shaped characteristics stand only qualitative comparison. The best base-to-base characteristics were observed in the nonsymmetrical diode connected with a short principal base. Optimum switching characteristics were obtained with minimum  $l_1$ , and L securing the required resistance of the closed diode;  $l_1$  is the principal base length, L is the diffusion length. Orig. art. has: 8 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 22Apr63

ATD PRESS: 3091

ENCL: 00

SUB CODE: EC

NO REF SOV: 001,

OTHER: 002

Card 2/2



SHTAGER, A.P.; STAFEYEV, V.I.

Current gain factor of a filamentary transistor (double-base diode). Radiotekh. i elektron. 10 no.9:1730-1733 S '65.  
(MIRA 18:9)

L 8245-66

ACC NR: AP5022444

SOURCE CODE: UR/0109/65/010/009/1730/1733

AUTHOR: Shtager, A. P.; Stafeyev, V. I.

ORG: none

TITLE: Current gain of a double-base diode

SOURCE: Radiotekhnika i elektronika, v. 10, no. 9, 1965, 1730-1733

TOPIC TAGS: semiconductor diode, double base diode

ABSTRACT: A theoretical analysis of the phenomena transpiring in a double-base diode, made from an intrinsic-conductivity semiconductor material, yields this formula for the current gain:

Examination of this formula proves that the current gain may considerably exceed its maximum value computed

$$\alpha = 1 + \left[ \frac{(I_s + 2I_{s0})R_s \operatorname{sh} \frac{I_1 B}{L}}{\frac{I_1}{L} \left( \operatorname{sh}^2 \frac{I_1}{L} + \frac{I_s^2}{I_1^2} \right) (I_s + I_{s0}) R_s} - 1 \right] \frac{R_s}{2R_s + R_x} \quad (7)$$

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UDC: 621.382.333.32

L 8245-66

ACC NR: AP5022444

from W. Shockley et al. formulas (BSTJ, 1949, 28, 3, 344). Formula (7) is in agreement with the experimental results reported by several American authors (e.g., J. R. Arthur et al., Proc. Phys. Soc., 1956, B-69, 4, 705) without resorting to additional assumptions about some mechanism that reduces the effective mobility of minority carriers. Formula (7) was qualitatively corroborated by authors' experiments with nonsymmetrical double-base diodes made from n-Ge with a resistivity of 40 ohms-cm. Orig. art. has: 4 figures and 8 formulas.

SUB CODE: 09 / SUBM DATE: 30May64 / ORIG REF: 002 / OTH REF: 004

CC  
Card 2/2

SHTAGER, Valeriy Vital'yevich; POPOVA, N.E., redaktor; BUSANKINA, N.G.,  
redaktor; SOKOLOVA, R.Ya., Tekhnicheskij redaktor.

[Band limiters and expanders and their application to telecommunication]  
Szhimateli-rasshiriteli i ikh primenenie v tekhnike dal'nei  
svyazi i radio, 1955. 58 p. (MIRA 9:4)  
(Telecommunication--Equipment and supplies)

SHTAGER, V.V., kandidat tekhnicheskikh nauk, starshiy nauchnyy sotrudnik.

The "compander" device in steel circuit compressing equipment of the VS-3 type. Vest.svyazi 16 no.8:3-5 Ag '56. (MLRA 9:10)

1.Nauchno-issledovatel'skiy institut gorodskoy i sel'skoy telefonnoy svyazi Ministerstva svyazi SSSR.  
(Telephone--Apparatus and supplies)



SHTAGER, V. V.

USSR/Corrosion - Protection From Corrosion

J.

Abs Jour : Referat Zhur - Khimiya, No 9, 1957, 33197

Author : Ivanov, I.I., Shtager, V.V.

Inst : Leningrad Institute of Railroad Transportation Engineers

Title : Experimental Studies of the Efficacy of Cathodic Protection  
From Corrosion Induced by Stray Currents

Orig Pub : Sb. Leningr. in-ta inzh. zh.-d. transp., 1956, No 151,  
115-119

Abstract : Studies of the effects of stray currents on the effective-  
ness of cathodic protection of the Kokhtla - Yarve - Lenin-  
grad gas pipe-line, have revealed that this method of pro-  
tection is not entirely adequate. Thus of the 6 points at  
which determinations were made, at 2 positive potential va-  
lues were recorded during 13-15% of the period of observa-  
tion, in spite of the switched on protection, as a result

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SHTAGER, VALERIY

PHASE I BOOK EXPLOITATION

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Shtager, Valeriy Vital'yevich

Podavleniye shumov v kanalakh veshchaniya (Noise Suppression in Broadcasting Channels) Moscow, Svyaz'izdat, 1957. 50 p. (Lektsii po tekhnike svyazi) 8,500 copies printed.

Ed.: Broyt, E. M.; Resp. Ed.: Popova, N. E. ; Tech. Ed.: Mazel', Ye. I.

PURPOSE: The booklet is intended for ~~communications~~ engineers and technicians. It is issued by the Ministerstvo svyazi SSSR, Tekhnicheskoye upravleniye (USSR Ministry of Communications. Technical Administration) and appears in the series "Lektsii po tekhnike svyazi" (Lectures on ~~communi-~~cations technique).

COVERAGE: The booklet examines the effect of noise and distortion on the quality of transmission in broadcasting channels. It describes noise abating devices for broadcasting channels and sets forth a theoretical analysis of the operation of instantaneous compressor-expanders. The

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Noise Suppression in Broadcasting Channels

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bases of design calculation for these devices is given and an indication of their possible application in various broadcasting channels. Besides the compensation methods now used for nonlinear distortions, the booklet describes the method based on the use of mutually inverse potentiometer circuits. There are 7 references, 4 of which are Soviet, 2 English, and 1 French.

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CONTENTS:

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Noise and Distortion in Broadcasting Channels	3
1. Noise and its influence on transmission quality	3
2. Music transmission characteristics and changes in them due to linear and nonlinear distortion	5
3. Normalization of electric characteristics in broadcasting channels equipped with compressor-expander devices	7
Devices Used in Broadcasting Channels for Noise Abatement During Transmission Breaks	9

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"Nomogramic Method of Calculating the Operating Phase Constant,"  
(New Works in the Field of Wire Communications; Collection of In-  
formation) Moscow, Svyaz'izdat [1957] 85 p.

Abst.: The author proposes a nomographic method method for calculating with a minimum loss of time, the operating phase constant of complex networks which can be represented as relatively simple, stage-connected quadripoles. This method would supplement the M. G. Tsimbalistiy method. After explaining the calculation of the transmission phase constant, the author provides a formula for constructing the nomogram shown in Fig. 4. The author explains how this nomogram is used and gives an example of actual calculation of the operating phase constant for a network of stage-connected low-frequency filters.

SHLAGER, V. V.

3  
The protection of gas distribution systems from corrosion by stray currents from electric traction lines. V. V. Ivanov and V. V. Shlager. *Gazovye Prom.* 1957, No. 8, 26-31. A description of the design and use of instruments (BIR-B and BIR-S) for detecting and measuring stray currents from elec. traction lines. Photographic cuts and detailed circuit diagrams are shown. H. L. Olin

RB  
any





SHTAGER, V.V.

В. В. Штагер

Электронная АТС на 18 номеров с простейшими  
или раздельными каналами

Г. А. Николаев

Использование элементов бесконтактной аппаратуры  
в цепи управления сигнализацией АТС.

О. Н. Николаев

Анализ бесконтактных схем связи при соединении  
и выключениях каналов для автоматизированной АТС.

М. Н. Поляков

Некоторые дополнительные возможности обработки  
всех элементов АТС.

В. А. Гринштейн

З. С. Козлов

Анализ бесконтактных схем управления работой  
аппаратуры связи в ретрансляторах.

В книге

(с 18 до 22 часов)

В. А. Гринштейн

Аппаратура открытой автоматической телефонной  
связи

20

Г. Н. Бондарев

О методах работы систем управления для  
автоматизированной телефонной связи

Г. З. Мантман

Применение бесконтактных элементов для аппаратуры  
и аппаратуры КРП.

В книге

(с 10 до 16 часов)

✓ Г. Н. Бондарев *Handwritten note: В книге 18-22*

Новая система управления работой автоматизированной  
связи.

С. С. Козлов

Математические методы для автоматизации  
систем связи связи.

А. К. Овчин

Некоторые вопросы и методы работы аппаратуры  
связи при автоматизации телефонной  
и радиотелефонной связи.

А. Ф. Уфимов

Система автоматизации работы на работе  
аппаратуры

21

report submitted for the Confidential Meeting of the Scientific Technological Society of  
Radio Engineering and Electrical Communications in A. S. Puzov (VRSIS), Moscow,  
6-12 June, 1959

NEOFITOV, A.S.; SHTAGER, V.V.

Operation of a main shale gas pipeline. Gaz. prom. 4 no.3:  
44-46 Mr '59. (MIRA 12:5)  
(Gas--Pipelines)

PHASE I BOOK EXPLOITATION

SOV/3892

Shtager, Valeriy Vital'yevich

Chebyshevskiye priblizheniya, primenyayemye v raschetakh elektricheskikh skhem.  
(Chebyshev Approximations Applied to the Design of Electric Networks) Moscow,  
Svyaz'izdat, 1960. 78 p. (Series: Lektsii po tekhnike svyazi) 6,100 copies  
printed.

Sponsoring Agency: USSR. Ministerstvo svyazi. Tekhnicheskoye upravleniye.

Resp. Ed.: K.A. Sil'vinskaya; Ed.: N.M. Kondrashina; Tech. Ed.: G.I. Shefer.

PURPOSE: This book is intended for electrical and communications engineers concerned with the synthesis of electric circuits.

COVERAGE: The book discusses problems in the theory of the uniform approximation of continuous functions by means of polynomials and rational fractions. Such solutions are applicable chiefly to problems dealing with the synthesis of electrical circuits. They may also be used in the synthesis of filters, correctors, delay lines, band pass amplifiers, antennas, etc. The author mentions a recently

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sov/3872

# Chebyshev Approximations Applied (Cont.)

published work by Ye.V. Voronovskaya in which cumbersome and complicated elliptic functions are replaced by differential (usually ordinary) equations. This method is, however, at present only of theoretical importance. There are 20 references: 19 Soviet and 1 German.

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Preface	3
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2. Weierstrass' theorems	8
3. Conditions for the best approximation formulated by Chebyshev	9
4. Extremal properties of trigometric polynomials	16
5. Chebyshev polynomials deviating least from zero	19
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Card 2/4



MOISEYEV, Geliy Ionovich; SHTAGER, V.V., nauchnyy red.; DAYEV, G.A.,  
vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn. red.

[Centrifugal compressor stations] Kompessornye stantsii s  
tsentrobezhnymi magnetateliymi. Leningrad, Gos.nauchno-tekhn.  
izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 61 p.

(MIRA 15:1)

(Gas, Natural--Pipelines) (Compressors)

S/194/62/000/007/121/160  
D413/D308

9.2520  
9.2560

AUTHOR: Shtager, V.V.

TITLE: Stability conditions for transistor feedback circuits

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7-7-12 r (In collection: Probl. peredachi informatsii, no. 9, M., AN SSSR, 1961, 230-239)

TEXT: It is shown that any type of feedback circuit with a single transistor can be represented in the form of a general circuit consisting of the transistor and seven elements of a feedback circuit. These seven elements are adequate for the analysis of most practical circuits, even when one has to take parasitic parameters into account. Practical circuits containing less than seven elements in the feedback loop are considered as particular cases (by eliminating a certain number of elements from the general circuit). Replacing the transistor by its equivalent circuit gives a transformed feedback circuit, for which the stability criterion is written down in matrix form. Replacing the elements of the matrix by para-  
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Stability conditions for transistor ... S/194/62/000/007/121/160  
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meters of the generalized circuit gives stability equations for a single-transistor feedback circuit with grounded base or emitter. It is shown that after substituting specific elements (R, L and C) and also variable  $j\omega$  in these equations, each of them splits into two: an equation for the imaginary components and one for the real components. The former is used to determine the frequencies of oscillation, and the latter to find numerical relations for the elements defining the transition from a stable to an unstable system. For the case of an avalanche-type process  $p = \sigma + j\omega$  is taken as the variable, and one determines the relations between the elements for which the equation can have a root with positive real part (the harmonic components may be absent). A stability equation is derived for a two-transistor feedback circuit with  $\Pi$ -networks as coupling. The stability equations for the single-transistor feedback circuit are used in the analysis of three types of harmonic oscillator: those with inductive autotransformer, and capacitative coupling. The frequency of oscillation is determined, together with the effect on its stability of the transistor parameters and of the relations between the elements of the circuit; the nature and value of the frequency stabilization is also derived. The results of the

Vc

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Stability conditions for transistor ... S/194/62/000/007/121/160  
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analysis are collated in a table. The conditions of oscillation are investigated for blocking oscillators with grounded emitter or grounded base and with symmetrical triggering. It is shown that a substantial non-linearity in a feedback circuit is no obstacle to the linear treatment of the conditions, for the appearance of regeneration, since in such treatment it is always assumed that the regeneration process starts with sufficiently small changes. } figures, 6 references. [Abstracter's note: Complete translation.]

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45681

S/106/63/000/002/003/007  
A055/A126

9.3280

AUTHOR: Shtager, V.V.

TITLE: Investigation of transient processes in transistorized regenerative circuits with the aid of four-pole matrices

PERIODICAL: Elektrosvyaz', no. 2, 1963, 29 - 36

TEXT: The author describes a general method for investigating transient processes in transistorized circuits. The method is based on the theory of autonomous four-poles (the circuit being represented by a closed system consisting of several cascade-connected four-poles, as shown in Fig. 1) and can be applied to a great number of regenerative circuits with either zero or non-zero initial conditions. The use of four-pole matrices, which is possible in a "step-by-step" examination of such circuits, permits of rendering the analysis much more rapid than when the method of differential equations is used. The author first finds the current  $I$  in a point of the circuit (Fig. 1) with the aid of formula:

$$I = \frac{-a_{21} J_a + (a_{11} - 1) e_a}{a_{11} + a_{22} - |a| - 1}, \quad (1)$$

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S/106/63/000/002/003/007  
A055/A126

Investigation of transient processes in ....

where  $a_{21}$ ,  $a_{11}$  and  $a_{22}$  are the elements of the matrix  $[a]$  of the four-pole obtained after the splitting of the circuit in the point where there flows  $I$ ;  $|a|$  is the determinant of this matrix;  $\dot{e}_a$  and  $j_a$  are the autonomous parameters of this four-pole. Matrix  $[a]$  can be determined by multiplying the elementary four-pole matrices;  $\dot{e}_a$  and  $j_a$  are found from formula:

$$\begin{bmatrix} \dot{e}_a \\ j_a \end{bmatrix} = \begin{bmatrix} \dot{e}_a \\ j_a \end{bmatrix} + [a]_1 \begin{bmatrix} \dot{e}_a \\ j_a \end{bmatrix} + \dots + [a]_1 [a]_{11} \dots [a]_{n-1} \begin{bmatrix} \dot{e}_a \\ j_a \end{bmatrix}_n, \quad (3)$$

the autonomous and nonautonomous matrices of the elementary four-poles are given by existing tables. The most general expression for the transmission factor (under the usual simplifications) is

$$K(p) = a_0 \frac{p^2 + a_1 p + a_2}{p(p + a_3)(p + a_4)}, \quad (4)$$

where  $p$  is a complex variable. The original of the complex function (4) is the transient response:

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Investigation of transient processes in ....

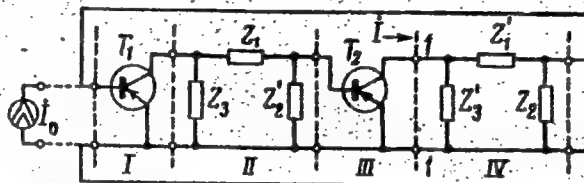
S/106/63/000/002/003/007  
A055/A126

$$h(t) = a_0 \left[ \frac{a_3^2 - a_1 a_3 + a_2}{a_3^2 (a_4 - a_3)} e^{-a_3 t} + \frac{a_4^2 - a_1 a_4 + a_2}{a_4^2 (a_3 - a_4)} e^{-a_4 t} + \frac{a_2}{a_3 a_4} t + \frac{a_1 a_3 a_4 - a_2 (a_3 + a_4)}{a_3^2 a_4^2} \right]. \quad (5)$$

By way of example, the author applies the described method to the following concrete transistorized circuits: 1) transistorized trigger; 2) transistorized multivibrator; 3) transistorized blocking oscillator. Expressions for  $K(p)$  and  $h(t)$  are deduced in these three particular cases. There are 3 figures.

SUBMITTED: April 28, 1962

Figure 1



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SHTAGER, Valeriy Vital'yevich; GOLUBTSOV, I.Ye., red.; LEONOVA,  
B.I., tekhn. red.

[Transistor devices in pulse circuits and switching circuits]  
Poluprovodnikovye pribory v impul'snykh i kommutatsionnykh  
skhemakh. Moskva, Gosenergoizdat, 1963. 189 p. (MIRA 16:5)  
(Transistor circuits) (Pulse circuits)  
(Electric networks)

L 7810-66 FSS-2/EWT(1) WR  
ACC NR: AP5027618

SOURCE CODE: UR/0109/65/010/011/1961/1966

AUTHOR: Shtager, Ye. A.

ORG: none

TITLE: Average intensity of a field reflected by a body of complex geometrical shape

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 1961-1966

TOPIC TAGS: acoustic detection, cw detection

ABSTRACT: This problem is considered: a planar field is incident upon a set of vibrating-in-unison reflectors deployed in a finite volume; the average intensity of reflection (in the Fraunhofer zone) of this scalar field — acoustic or electromagnetic — is sought. The arrangement of reflectors (the shape of the reflecting body) is restricted to those cases when a discernible part of them yields the bulk of the total reflected signal. The transmitting and receiving antennas are

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UDC: 621.371.162

L 7810-66

ACC NR: AP5027618

supposed to be at the same point. It is found that, in the case of short-wave dispersion and not-too-small reflector vibrations, the average intensity of the reflected field is approximately equal to the arithmetic sum of the average intensities of the fields reflected by individual reflectors. Reradiation among the reflectors is neglected. If the depolarizing characteristics of the reflecting complex-shape body are not pronounced, the final conclusions and formulas are applicable not only to the scalar but also to a linearly polarized electromagnetic field. "The author wishes to thank L. I. Bogin for his interest in this work and his comments re the manuscript." Orig. art. has: 3 figures and 17 formulas.

SUB CODE: 09, 17 / SUBM DATE: 22May64 / ORIG REF: 001 / OTH REF: 001

  
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31486

S/109/62/007/002/003/024  
D266/D303

7.9600

AUTHOR: Shtager, Ye.A.

TITLE: Scattering of fluctuating waves on large obstacles

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 2, 1962,  
202 - 205

TEXT: The purpose of the paper is to find the mean square value of the scattered field intensity if the incident wave fluctuates. The author assumes that the dimensions of the obstacle are large in comparison with the wavelength and no parts of the obstacle are in shadow. Under these conditions the scattered field in the Fraunhofer region can be expressed with the aid of the Kirchhoff integral as follows

$$U = K(\gamma, \vartheta, \varphi) \int_S a_0 e^{i\gamma x + i\vartheta y + i\varphi z} dS$$

where U can represent one of the components of an electromagnetic field or the potential of an acoustic wave,  $\gamma$  and  $\vartheta$  are the angles

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Scattering of fluctuating waves on ...

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between the xy plane and the directions of the incident and reflected waves respectively (Fig. 1),  $K(\gamma, \vartheta, \varphi)$  - a scalar factor dependent on the type and polarization of the field,  $\xi, \Psi$  - random variables representing the amplitude and phase of the incident field,  $\vec{r}$  - a vector drawn from the 0 point of the coordinate system to the dS surface element of the obstacle. It follows that the general formula for the mean square of the field intensity is given in the following form

$$\overline{UU^*} = K^2 a_0^2 \int_{S_1} \int_{S_2} e^{\xi_1 + \xi_2 + i(\Psi_1 - \Psi_2)} e^{i\vec{q}(\vec{r}_1 - \vec{r}_2)} dS_1 dS_2 \quad (5)$$

where the bar denotes the average value. As a special case the scattering properties of a rectangular plate ( $h \times h$ ) are investigated. The author assumes that  $\xi$  and  $\Psi$  are uncorrelated, both follow a two dimensional Gaussian distribution, their autocorrelation functions are identical and take the form

$$R_\xi = R_\Psi = e^{-l^2/a^2} \quad (6)$$

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Scattering of fluctuating waves on ...

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where  $l$  - distance between two points on the plate,  $a$  - radius. Assuming further that  $a \ll h$  and applying Krom and G. method (Ref. 6: Akust. zh. 1958, 4) Eq. (5) can be integrated leading to the following formula

$$\overline{UU^*} = K^2 \overline{A_0^2} h^4 e^{-(\overline{q_x^2} + \overline{q_y^2})} \left[ \frac{\sin^2 \frac{q_x h}{2}}{\left(\frac{q_x h}{2}\right)^2} \frac{\sin^2 \frac{q_y h}{2}}{\left(\frac{q_y h}{2}\right)^2} + \frac{\pi a^2}{h^3} \sum_{m=1}^{\infty} \frac{(\overline{q_x^2} + \overline{q_y^2})^m}{m!m} e^{-\frac{a^2}{m} (\frac{q_x^2 + q_y^2}{4})} \right]. \quad (8)$$

If  $\overline{q_x^2} = \overline{q_y^2} = 0$  Eq. (8) can be reduced to the usual form of the diffraction formula of a rectangular plate. In a numerical example  $h/\lambda = 10$ ,  $h/\lambda = 100$ ,  $\overline{q_x^2} + \overline{q_y^2} = 3$ ,  $a = 0$  are taken. The calculated diffraction patterns are also shown in a figure. It can be noted that the presence of fluctuations widens the main lobe and increases the level of the side lobes. There are 2 figures and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.B. Keller, J. Appl. Phys. 1957, 4.

SUBMITTED: April 24, 1961  
Card 3/4



Scattering of fluctuating waves on ...

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D266/D303

Fig. 1.

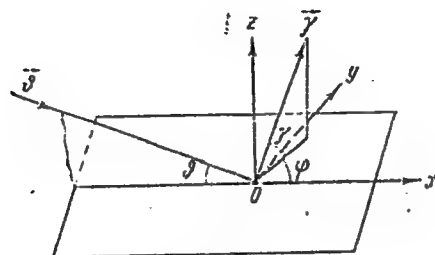


Рис. 1

Card 4/4

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oscillating body. Radiotekh. i elektron. 10 no.8:1523-1525 Ag '65.  
(MIRA 12:8)

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SO: U-5600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

RIKHTER, A.A.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; SHTAKEL'BERG,  
A.A., redaktor; SMIRNOVA, A.V., tekhnicheskiiy redaktor.

[Buprestidae] Zlatki (Buprestidae). Moskva, Izd-vo Akad. nauk SSSR,  
1949. 255 p. (Fauna SSSR, vol.37). (MLBA 10:8)  
(Beetles)

SHTAKELBERG, A.A.

33974 SHTAKELBERG, A.A. Vidy Roda  
HERCOSTOMUS LW (DEPTERA, DOLICHOPODIDAE)  
Sredneaziatoskoy Fauny Trudy Zool  
In-Ta (Akad. Nauk SSSR) T. VIII, Vyp  
4, 1949, S. 669-87

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Diptera

Data on lepidoptera in the Leningrad region. Part 1: Nematocera Polyneura (Diptera).  
Trudy Zool. inst. AN SSSR., 9, No. 3, 1951

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Scellus, L. L.

Diptera

Palaearctic species of the genus *Scellus* Lw. (Diptera, Dolichopodidae). Ent. ob. 31  
no. 3, 1951.

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2

SHTAKEL'BERG, A.A.

New Syrphidae (Diptera) of the paleoarctic fauna. Trudy zool. inst. 12:  
350-400 '52. (MLRA 6:6)  
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(Tajikistan--Diptera)

SHTAKEL'BERG, A.A.

New species of Cordyluridae (Diptera) of northern U.S.S.R. Trudy zool.  
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(Russia, Northern--Diptera)

PERGAMENT, T.S.; USHAKOV, P.V.; SHTAKEL'BERG, A.A.

In memory of N.P. Annankova (1887-1950). Trudy zool. inst. 12:418-421 1952.  
(MLRA 6:6)  
(Annenkova, Nadezhda Pavlovna, 1887-1950)

SHTAKEL'BERG, A.A.

Short survey of Palaearctic species of the genus *Zelima* Mg.  
(Diptera, Syrphidae). Ent.oboz. 32:316-328 '52. (MLRA 7:1)

1. Zoologicheskiy institut Akademii nauk SSSR. Leningrad.  
(Flies)

SHTAKEL'BERG, A.A.

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SHTAKEL'BERG, A.A.

~~SECRET~~

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'52.

(Rikhter, Andrei Andreevich, 1911-1950)

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PAVLOVSKIY, Ye.N., akademik, redaktor; VINOGRADOV, B.S., redaktor;  
ARNOL'DI, L.V.; BRY-BIYENKO, G.Ya.; BORKHSENIUS, N.S.; VINOGRADOV, B.S.;  
GUTSEVICH, A.V.; KIRICHENKO, A.N.; KIR'YANOVA, Ye.S.; KOZHANCHIKOV, I.V.;  
LMPNEVA, S.G.; LIKHAREV, I.M.; MALEVICH, I.I.; NOVIKOV, G.A.; POPOV, V.V.;  
POPOVA, A.N.; SOCHAVA, V.B.; STANK, V.N.; TERENT'YEV, P.V.; KHARITONOV,  
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Short survey of palaearctic species of the genus Sphegina Mg.  
(Diptera, Syrphidae). Trudy Zool.inst. 13:373-386 '53. (MLRA 7:5)  
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~~SHTAKEL'BERG, A.A.; TERTERYAN, A.Ye.~~

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of horseflies (Diptera, Tabanodae). Dokl. AN Arm. SSR. 16 no.2:  
53-64 '53. (MIRA 9:10)

1. Zoologicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno  
V.O. Gulkanyanov.  
(Horseflies) (Generative organs, Female)

SHTAKEL'BERG, A.A.

~~Palaeoarctic species of the genus Orthoneura Macq. (Diptera, Syrphidae).~~  
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1. Zoologicheskii institut Akademii nauk SSSR, Leningrad.  
(Syrphus flies)

SHTAKEL'BERG, A.A.

In memory of Aksel' Nikolaevich Reikhardt (1891-1942). Ent.oboz. 33:  
369-375 '53. (MERA 7:5)  
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POPOV, V.V.; SHTAKEL'BERG, A.A.

(Reviewer)

"Origin and evolution of parasitism of ichneumon flies and their  
fauna formation in the U.S.S.R." N.A.Telenga. Reviewed by V.V.Popov,  
A.A.Shtakel'berg. Ent.oboz. 33:384-388 '53. (MLRA 7:5)  
(Parasites--Insects) (Telenga, N.A.) (Braconidae)

SHTAKEL' BERG, A.A.

Materials on the Diptera of Leningrad Province. Trudy Zool. inst.  
15:199-228 '54. (MLRA 7:7)

(Leningrad Province--Diptera) (Diptera--Leningrad Province)

SHTAKEL' BERG, A.A.

Problems and prospects in developing the systematics and zoo-  
geography of insects in the U.S.S.R. Zool.zhur. 33 no.4:733-742  
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1. Zoologicheskii institut Akademii nauk SSSR.  
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SHTAKEL' BERG, A.A.

ANDRIYASHEV, A.P.; PAVLOVSKIY, Ye.M., akademik, glavnyy redaktor;  
BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; STREL-  
KOV, A.A., redaktor; SHTAKEL' BERG, A.A., redaktor; SOSUNTSOVA, Ye.M.,  
redaktor; SMIRNOVA, A.V., ~~tekhnicheskyy~~ redaktor.

Fishes of the northern seas of the U.S.S.R. Opredeleteli po faune  
SSSR no.53:3-566 '54. (MIRA 7:11)

1. Direktor Zoologicheskogo instituta Akademii nauk SSSR (for Pav-  
lovskiy)  
(Fishes)

SHINKEL'BERG, A.A.

TELENGA, N.A.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor; SHINKEL'BERG, A.A., redaktor; BORKHSENIUS, N.S., redaktor; KRYZHANOVSKIY, O.L., redaktor; SMIRNOVA, A.V., tekhnicheskiy redaktor.

Hymenoptera; family Braconidae, subfamily Microgasterinae, subfamily Agathinae. Fauna SSSR 5 no.4:3-312 '55. (MIRA 8:5)

1. Direktor Zoologicheskogo Instituta Akademii nauk SSSR (for Pavlovskiy).  
(Hymenoptera)



SHTAKEL'BERG, A.A.

New fly species in the Acalyptrata (Diptera) group from Leningrad  
Province. Trudy Zool. inst. 18:328-333 '55. (MIRA 9:2)  
(Leningrad Province--Flies)

SHTAKEL'BERG, A.A.

Palaeartic species of the genus *Penthesilea* Mg. (Diptera,  
*Syrphidae*). Ent.oboz. 34:340-349 '55. (MLRA 9:5)

1. Zoologicheskii institut Akademii nauk SSSR, Leningrad.  
(Syrphus flies)

SHTAKEL'BERG, A.A.

USHAKOV, P.V.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye.,  
redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor;  
SHTAKEL'BERG, A.A., redaktor

Polychaeta of the Far Eastern seas of the U.S.S.R. Opr.po faune  
no.56:3-443 '55. (MLRA 8:11)

1. Direktor Zoologicheskogo instituta Akademii nauk SSSR (for Pav-  
lovskiy)

(Soviet Far East--Polychaeta)

SHTAKEL'BERG, A. A.

GALKIN, Yu. I.; PAVLOVSKIY, Ye. N., akademik, redaktor; BYKHOVSKIY, V. Ye.  
redaktor; VINOGRADOV, B. S., redaktor; STRELKOV, A. A., redaktor;  
SHTAKEL'BERG, A. A., redaktor; RADZIVILOVSKAYA, Z. A., redaktor;  
ARONS, R. A., tekhnicheskii redaktor

Gasteropoda, Trochidae of the Far Eastern and northern seas  
of the U.S.S.R. Opr. po faune No. 57: 3-131 1955. (MLRA 8:7)

1. Direktor zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Gasteropoda)

SHAKEL'BERG, A. A.

KOROTKEVICH, V. S.; PAVLOVSKIY, Ye. N., akademik, redaktor; BYKHOVSKIY, B. Ye.,  
redaktor; VINOGRADOV, B. S., redaktor; STRELKOV, A. A., redaktor; SHAKEL'-  
BERG, A. A., redaktor

Pelagic nemertinea of the Far Eastern seas of the U.S.S.R. Opr.po  
faune no. 58:3-131 '55. (MIRA 8:11)

1. Direktor Zoologicheskogo instituta Akademii nauk SSSR (for Pav-  
lovskiy)

(Soviet Far East--Nemertinea)

*SHTAKEL'BERG, AA*  
PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye., redaktor;  
VINOGRADOV, B.S., redaktor; STRELKOV, A.A.; SHTAKEL'BERG, A.A.,  
redaktor; BREGETOVA, N.G., redaktor; RADZIVILOVSKAYA, Z.A.,  
redaktor; SMIRNOVA, A.V., tekhnicheskiy redaktor.

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(MLRA 9:1)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Mites) (Rodentia--Diseases and pests)

GUTSEVICH, A.V.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; IVANOV, A.I., redaktor; KRYZHANOVSKIY, O.L., redaktor; MONCHADSKIY, A.S., redaktor; STRALKOV, A.A., redaktor; SETAKHL'BERG, A.A., redaktor vypuska; KOZLOVA, G.I., redaktor izdatel'stva; TVARITINOVA, K.S., tekhnicheskii redaktor

[Biting midges; bloodsucking Diptera of the Heleidae family] Mokretsy, krovososushchie dvukrylye semeistva Heleidae. Moskva, Izd-vo Akademii nauk SSSR, 1956. 50 p. (V pomoshch' rabotaiushchim po zoologii v pole i laboratorii, 3) (MLRA 9:9)  
(Diptera)

RUBTSOV, I.A.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; IVANOV, A.I., redaktor; KRYZHANOVSKIY, O.L., redaktor; MONCHADSKIY, A.S., redaktor; STRELKOV, A.A., redaktor; SHTAKEL'BERG, A.A., redaktor; TVERETINOVA, K.S.; tekhnicheskiy redaktor

[Methods of studying black flies] Metody izucheniya moshek. Moskva, Izd-vo Akademii nauk SSSR, 1956. 54 p. (V pomoshch' rabotaiushchim po zoologii v pole i v laboratorii, 4) (MLBA 9:10)  
(Black flies)



VYSOTSKAYA, S.O.; PAVLOVSKIY, Ye.N., akademik, radaktor; BYKHOVSKIY, B.Ye., radaktor; VINOGRADOV, B.S., radaktor; STRELKOV, A.A., radaktor; ~~SHTAKEL'BERG, A.A.~~, radaktor; DUBININ, V.B., radaktor; ZENDEL', R.Ye., tekhnicheskii radaktor.

[Short guide to fleas having an epidemiological significance]  
Kratkii opredelitel' blokh, imeiushchikh epidemicheskoe znachenie.  
Moskva, Izd-vo Akademii nauk SSSR, 1956. 99 p. (Opredeliteli po  
faune SSSR, no.63) (MLRA 9:8)

(Fleas as carriers of disease)

*SHTAKEL' BERG, A.A.*  
SERDYUKOVA, G.V.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor; SHTAKEL' BERG, A.A., redaktor.; BLAGOVESHCHESNKIY, D.I., redaktor izdaniya; KOZLOVA, G.I., redaktor izdatel'stva; KNUGLIKOVA, N.A., tekhnicheskii redaktor.

[Ixodid ticks of the U.S.S.R.] Iksodovye kleshchi fauny SSSR. Moskva, Izd-vo Akademii nauk SSSR, 1956. 121 p. (Opredeliteli po faune SSSR, no.64) (MIRA 10:3)

1. Direktor Zoologicheskogo insituta AN SSSR (for Pavlovskiy).  
(Ticks)

SHTAKEL'BERG, A.A.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye.,  
redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A.; redaktor;  
SMIRNOV, A.V., tekhnicheskii redaktor.

[Synanthropic diptera of the U.S.S.R.] Sinantropnye dvukrylye fauny  
SSSR. (Opredeliteli po faune SSSR no. 60) 1956 163 p. (MIRA 9:4)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Diptera)

BREGETOVA, N.G.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor; SHTAKEL'BERG, A.A., redaktor; MONCHADSKIY, A.S., redaktor; ZENDEL', M.Ye., tekhnicheskii redaktor.

[Gamasic mites (Gamasoidea); short guide] Gamazovye kleshchi (Gamasoidea); kratkii opredelitel'. Moskva, Izd-vo Akademii nauk SSSR, 1956. 246 p. (Opredeliteli po faune SSSR, no.61) (MLRA 9:8)

1. Direktor zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Mites)

NOVIKOV, G.A.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye.,  
redaktor; VINOGRADOV, B.S., rdaktor; STRELKOV, A.A., redaktor;  
SHTAKEL'BERG, A.A., redaktor; KOZLOVA, G.I., redaktor; SMIRNOVA,  
A.V., tekhnicheskij redaktor.

[Carnivorous mammals of the U.S.S.R.] Khishchnye mlekopitaiushchie  
fauny SSSR. Moskva, Izd-vo Akademii nauk SSSR, 1956. 293 p.  
(Opredeliteli po faune SSSR. no. 62) (MLBA 9:8)

1. Direktor zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Carnivora)

KOZHANCHIKOV, I.V.; PAVLOVSKIY, Ye.N., akademik, glavnyy red.;  
SHTAKEL'BERG, A.A., red.serii; KRYZHANOVSKIY, O.L., red.toma;  
KRUGLIKOVA, N.A., tekhn.red.

Lepidoptera. Vol.3, no.2: [Bagworm moths (family Psychidae)]  
Chekhlonosy-nashechnitsy (sem. Psychidae). Moskva, Izd-vo Akad.  
nauk SSSR, 1956. 516 p. (Fauna SSSR, no.62)  
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1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy).  
(Bagworm moths)

SHIRAKI, A. A.

DUBININ, V.B.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; ~~SHIRAKI, A.A.~~, redaktor; STRELKOV, A.A., redaktor; ZENDEL', R.Ye., tekhnicheskyy redaktor.

[Feather mites (Analgesoidea)]. Per'evye kleshchi (Analgesoidea). Pt.3: [Family Pterolichidae]. Semeistvo Pterolichidae. Moskva, Izd-vo Akademii nauk SSSR, 1956. 813 p. (Fauna SSSR vol.6, no.7). (MLRA 10:6)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy).  
(Mites) (Parasites--Birds)

RUBTSOV, I.A.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY,  
B.Ye.N., redaktor; VINOGRADOV, B.S., redaktor; ~~SHTAKEL'BERG, A.A.~~  
redaktor; STRELKOV, A.A., redaktor toma.

[Black flies (fam. Simuliidae)] Moshki (sem. Simuliidae). Moskva,  
Izd-vo Akademii nauk SSSR, 1956. 859 p. (Fauna SSSR, vol.6, no.6)  
(Black flies) (MLRA 9:12)



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New data on the systematics of Palaearctic species of the genus *Sphegina*  
Mg. (Diptera, Syrphidae. Part 1 [with summary in German]. Ent.oboz.35  
no.3:706-715 '56. (MLRA 9:10)

1. Zoologicheskii institut Akademii nauk SSSR, Leningrad.  
(Syrphus flies)

SHTAYEL'BERG, A.A.

New data on the systematics of Palaearctic species of the genus  
Sphegina Mg. (Diptera, Syrphidae). Part 2. Ent.oboz.35 no.4:935-  
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1. Zoologicheskii institut Akademii nauk SSSR, Leningrad.  
(Soviet Far East--Syrphus flies)

SHTAKEL'BERG, A.A.

BEY-BIYENKO, G.Ya; DANILEVSKIY, A.S.; IVANOV, A.V.; PAVLOVSKIY, Ye.N.;  
akademik; SHTAKEL'BERG, A.A.; IVANOV, A.I., redaktor; KRYZHANOVSKIY,  
O.L., redaktor; MONCHADS, I., A.S., redaktor; STRELKOV, A.A., redaktor;  
BORKHSENIUS, N.S., redaktor; PETROVA, P.Ye., tekhnicheskiy redaktor.

[Guide to classes and orders of land Arthropoda] Opredeletel'  
klassov i otriadov nazemnykh chlenistonogikh. Moskva, Izd-vo  
Akad.nauk SSSR, 1957. 88 p. (V pomoshch' rabotaiushchim po  
zoologii v pole i laboratorii, 5] (MLRA 10:6)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Arthropoda)

*SENTINEL, 1957, 143*  
KOZLOVA, Ye.V.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY, B.Ye.,  
redaktor; VINOGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor; ~~SHTAKEL'~~  
~~HERG, A.A.~~, redaktor; IVANOV, A.I., redaktor; KOZLOVA, G.I., redaktor  
izdatel'stva; SMIRNOVA, A.V., tekhnicheskiiy redaktor.

[Charadriiformes. Suborder Alcae. 143 p.] Rzhankobraznye. Podotriad  
chistikovye. Moskva, Izd-vo Akademii nauk SSSR, 1957, 143 p. (Fauna  
SSSR, vol.2, no.3) (MLRA 10:3)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy)  
(Auks)

SHTAKEL'BERG, A. A.

EULYCHEVA, A.I.; PAVLOVSKIY, Ye.N., akademik, glavnyy redaktor; BYKHOVSKIY, B.Ye., redaktor; VINGRADOV, B.S., redaktor; STRELKOV, A.A., redaktor; SHTAKEL'BERG, A.A., redaktor izdaniya; KRUGLIKOVA, N.A., tekhnicheskii redaktor

[Talitroidea in the seas of the U.S.S.R. and adjacent waters (Amphipoda Talitroidea)] Morskoe blokhi morei SSSR i sopredel'nykh vod (Amphipoda Talitroidea) Moskva, Izd-vo Akademii nauk SSSR, 1957. 185 p. (Opredeliteli po faune SSSR no.65). (MIRA 10:4)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy) (Amphipoda)

SHIRINOV, A. A.

LUK'YANOVICH, F.K.; TER-MINASYAN, M.Ye.; PAVLOVSKIY, Ye.N., akademik,  
glavnyy redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S.,  
redaktor; STRELKOV, A.A., redaktor; SHTAKEL'BERG, A.A., redaktor;  
TVERITINOVA, K.S., tekhnicheskiiy redaktor.

[Grain beetles (Bruchidae).] Zhuki-zernovki (Bruchidae). Moskva,  
Izd-vo Akad. nauk SSSR, 1957. 208 p. (Fauna SSSR, no.67, Zhestko-  
krylye, vol. 24, no.1). (MIRA 10:7)

(Beetles)

SHTAKEL'BERG, A.A.

TARASOV, N.I.; ZEVINA, G.B.; PAVLOVSKIY, Ye.N., akademik, glavnyy red.;  
BYKHOVSKIY, B.Ye., red.; VINOGRADOV, B.S., red.; SHTAKEL'BERG, A.A.,  
red.; STRELKOV, A.A., red.; SERGEYEVA, G.I., red. izd-va; SMIRNOVA,  
A.V., tekhn. red.

[Barnacles (Cirripedia thoracica) in the seas of the U.S.S.R.] Us-  
nogie raki (Cirripedia thoracica) morei SSSR. Moskva, Izd-vo akad.  
nauk SSSR, 1957. 263 p. (Fauna SSSR, no.69). (MIRA 11:3)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy).  
(Cirripedia)

~~SHATKELBERG, A.A.~~

BORKHSENIUS, N.S.; PAVLOVSKIY, Ye.N., akademik, redaktor; BYKHOVSKIY, B.Ye., redaktor; VINOGRADOV, B.S., redaktor; STREKLOV, A.A., redaktor; ~~SHATKELBERG, A.A.~~, redaktor izdaniya; KRUGLIKOVA, N.A., tekhnicheskii redaktor.

[Suborder Coccoidea. Family Coccidae] Podotr. chervetsy i shchitovki (Coccoidea). Semeistvo podushhechnitsy i lozhnoshchitovki (Coccidae). Moskva, Izd-vo Akademii nauk SSSR. 1957. 493 p. (Fauna SSSR, no.66. Nasekomye khobotnye, vol.9) (MLRA 10:5)  
(Scale insects)



~~SECRET~~ SHTAKELBERG, A A

26-12-34/49

AUTHOR: Moravskaya, A.S.

TITLE: All-Union Conference of Entomologists (Vsesoyuznoye soveshchaniye entomologov)

PERIODICAL: Priroda, 1957, No 12, p 112 (USSR)

ABSTRACT: The author reports on the 3rd meeting of the All-Union Association of Entomologists of the AN, USSR which was held at Tbilisi on October 4 - 9, 1957. It was opened by the vice-president G.Ya. Bey-Biyenko, Member-Correspondent of the AN, USSR who gave an account of the Association's achievements during the 40 years of Communist regime. The following discourses were delivered: "Ways of development of general entomology in connection with the demands of theory and practice" by Professor A.A. Shtakel'berg; "Basic results in the field of the study of morphology of insects during 40 years of Communist regime and the next problems of morphologists" by Professor D.M. Shteynberg; "Review of the inquiries into the problems of entomology in Georgia during 40 years" by L.P. Kalandadze, Member-Correspondent of the AN of the Georgian SSR. The participants consisted of representatives of institutes, universities, botanical gardens, experimental stations, game reservations and other scientific establishments.

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26-12-34/49

All-Union Conference of Entomologists

ASSOCIATION: Forest Institute of the AN, USSR (Moskva) (Institut lesa Akademii nauk SSSR (Moskva)

AVAILABLE: Library of Congress

Card 2/2

SHTAKEL'BERG, A.A.

Basic results of work on insect taxonomy in the U.S.S.R.; 1917-  
1957. Ent. oboz. 36 no.4:786-801 '57. (MLRA 10:9)

1. Zoologicheskii institut Akademii nauk SSSR, Leningrad.  
(Entomological research) (Insects--Classification)

PAVIL'SHCHIKOV, Nikolay Nikolayevich; PAVLOVSKIY, Ye.N., akademik,  
glavnyy red.; BYKHOVSKIY, B.Ye., red.; VINOGRADOV, B.S., red.;  
STRELKOV, A.A., red.; SHTAKEL'BERG, A.A., red.serii; KRYZHANOV-  
SKIY, O.L., red.toma; KRUGLIKOVA, N.A., tekhn.red.

Coleoptera. Vol.23 no.1: [Longicorn beetles] Zhuki-drovoski.  
Pt.3: [Subfamily Lamiinae. Pt.1.] Podsemeistvo Lamiinae. 1958.  
591p. Moskva, Izd-vo Akad. nauk SSSR. (Fauna SSSR, no.70).  
(MIRA 13:4)

1. Direktor Zoologicheskogo instituta AN SSSR (for Pavlovskiy).  
(Longicorn beetles)

AKRAMOVSKIY, N.N., ARNOL'DI, L.V., BEI-BIYENKO, G.Ya., BORKHSENIUS, N.S.,  
VERESHCHAGIN, N.K., DAL', S.K., D'YAKONOV, A.M., KIRICHENKO, A.N.,  
KIR'YANOVA, Ye.S., KOZHANCHIKOV, I.V., KRYZHANOVSKIY, O.L.,  
LEPHEVA, S.G., LIKHAREV, I.M., LOGINOVA, M.M., NIKOL'SKAYA, M.N.,  
NOVIKOV, G.A., POPOV, V.V., PORTENKO, L.A., RYABOV, M.A., TER-MINASYAN,  
M.E., CHERNOV, S.A., SHTAKEL'BERG, A.A.; PAVLOVSKIY, Ye.N., akad.,  
glavnyy red., VINOGRADOV, B.S., [deceased], red.; KOZLOVA, G.I., red.  
izd-va.; PEVZNER, R.S., tekhn. red.

[Animals of the U.S.S.R.] Zhivotnyi mir SSSR. Moskva. Vol. 5. [Mountain  
provinces of European Russia] Gornye oblasti evropeiskoi chasti  
SSSR. 1958. 655 p. (MIRA 11:11)

1. Akademiya nauk SSSR. Zoologicheskiy institut.  
(Zoology)

SHTAKEL'BERG, A.A.

Materials on the Diptera of Leningrad Province. Pt.3: Diptera  
Acalyptrata. Report No.1. Trudy Zool.inst. 24:103-191 '58.  
(Leningrad Province--Flies) (MIRA 11:10)

SHTAKEL'BERG, A.A.

~~Materials~~ on the Diptera of Leningrad Province. Pt.4: Syrphidae  
(Diptera). Trudy Zool. inst. 24:192-246 '58. (MIRA 11:10)  
(Leningrad Province--Syrphus flies)

*SHTAKEL'BERG A.H.*

AUTHOR: Gilyarov, E. S., Doctor of Biological Sciences. 30-1-35/39

TITLE: Theoretical and Practical Work Carried out by Entomologists (Teoreticheskiye i prakticheskiye raboty entomologov).  
All-Union Entomological Conference (sesoyuznoye entomologicheskoye soveshchaniye).

PERIODICAL: Vestnik AN SSSR, 1958, Vol. 28, Nr 1, pp. 129-130 (USSR).

ABSTRACT: By invitation of the Georgia Department of the All-Union Entomological Society a conference took place at Tbilissi from October 4, to October 9, 1957, which was attended by more than 500 delegates of the entire country. The program contained reports on general questions of entomology as well as such dealing with entomological problems of the Transcaucasus district. The following reports were heard:

- 1) A. A. Shtakel'berg: On the achievements of general entomology as well as on the results of morphological insect research in the USSR.
- 2) L. P. Kalandadze: On the results obtained by Georgia entomologists.
- 3) G. I. Kancheveli: On the results obtained by the investigation of blood-sucking midges.
- 4) G. Ya. Bey-Biyenko, (Leningrad): On various aspects of the for-

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All-Union Entomological Conference

- mation of insect complexes, especially of vermin found in seed-  
and culture plants.
- 5) M. S. Gilyarov, (Moscow): Problems of evolution and phylogenesis  
of various groups of insects in general
  - 6) B. B. Rodendorf, (Moscow): Dto. for dipterous insects.
  - 7) O. A. Chernova, (Moscow): Dto. for one-day flies.
  - 8) G. A. Viktorov, (Moscow): Dto. for parasitic hymenoptera.
  - 9) V. K. Eglitis, (Riga): On the place of insects in the biocoeno-  
sis of the soil.
  - 10) A. S. Danilevskiy, (Leningrad): Investigations concerning photo-  
periodic reactions in insects.
  - 11) P. S. Ushatinskaya, (Moscow): Research work concerning the pe-  
riodic changes in metabolism during  
the development of insects.
  - 12) G. A. Mazokhin-Porshnyakov, (Moscow): Numerous data concerning  
the present conception of  
the perception of the ul-  
traviolet spectrum part by  
insects.
  - 13) K. V. Arnol'di (Moscow): Criticism of the present conceptions of  
the structure of areas of species.

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Theoretical and Practical Work Carried out by Entomologists. 30-1-35/39  
All-Union Entomological Conference

- 14) V. F. Paliy, (Lvov): On the causes and the treatment of the prognoses of the mass multiplication of insects.  
A. I. Vorontsov, (Moscow district):
- 15) V. A. Shchepetil'nikova, (Leningrad): The results of many years of work in the field of biological methods of vermin-insects.
- 16) Ya. I. Prints, (Kischinow): On the pygloxera problem.
- 17) A. V. Gutsevich, (Leningrad): On blood-sucking midges.
- 18) G. V. Rekk, (Tbilissi): Results obtained from examining the spider tick.
- 19) I. A. Batiashvili, (Tbilissi). On the ticks in fruit trees and berry-bearing bushes.
- 20) P. I. Marikovskiy, (Tomsk). On general entomology.
- 21) I. V. Stebayev, (Moscow). On the investigation of the fauna of the soil.
- 22) N. I. Goryshin, (Leningrad). On the correlation of the light- and temperature factor in the development of insect types.
- Card 3/4. 23) Yu. B. Byzova, (Moscow). On the compensation development and the

Theoretical and Practical Work Carried out by Entomologists. 30-1-35/39  
All-Union Entomological Conference

secondary differentiation of insect cuticles.

24) A. G. Sharov, (Moscow). On the peculiar features of fossilized  
insects of the lowest kind.

It was decided to convene an Allunion Congress of Entomologists in 1960  
and to combine it with the hundred years' jubilee of the Society.

AVAILABLE: Library of Congress.

1. Biology 2. Scientific reports-USSR

Card 4/4

SHTAKEL'BERG, A.A.

Brief survey of Palearctic species of the genus *Spilomyia* Mg.  
(Diptera, Syrphidae) [with summary in English]. Ent. oboz. 37  
no. 3:759-768 '58. (MIRA 11:10)

1. Zoologicheskiy institut AN SSSR, Leningrad.  
(Syrphus flies)

LINDBERG, G.U.; LEGEZA, M.I.; PAVLOVSKIY, Ye.N., akad., glavnyy red.;  
BYKHOVSKIY, B.Ye., red.; VINOGRADOV, B.S. [deceased], red.;  
STRELKOV, A.A., red.; SHTAKEL'BERG, A.A., red.; ANDRIYASHEV,  
A.P., red.; SMIRNOVA, A.V., tekhn.red.

[Fishes of the Sea of Japan and contiguous areas of the  
Sea of Okhotsk and the Yellow Sea. Pt. 1: Amphioxii, Petromy-  
zones, Myxini, Elasmobranchii, Holocephali] Ryby Iaponskogo  
moria i sopredel'nykh chastei Okhotskogo i Zheltogo morei.  
Moskva, Izd-vo Akad.nauk SSSR. Part 1. Amphioxii, Petromyzones,  
Myxini, Elasmobranchii, Holocephali. 1959. 207 p. (Opredeliteli  
po faune SSSR, no. 68). (MIRA 12:12)

1. Direktor Zoologicheskogo Instituta AN SSSR (for Pavlovskiy)  
(Japan, Sea of--Fishes)

SHTAKEL'BERG, A.A.

In memory of Igor' Vasil'evich Kozhanchikov (1904-1958). Ent.  
oboz. 38 no.1:243-251 '59. (MIRA 12:4)  
(Kozhanchikov, Igor' Vasil'evich, 1904-1958)

KRYZHANOVSKIY, O.L.; LIKHAREV, I.M.; POPOV, V.V.; STRELKOV, A.A.; SHTAKEL'BERG,  
A.A.

"Invertebrates of the Zeravshan Valley" by R.A. Alimdzhanov,  
TS.G. Bronshtein. Reviewed by O.L. Kryzhanovskii and others.  
Zool.zhur. 38 no.5:786-791 My '59. (MIRA 12:7)  
(Zeravshan valley--Invertebrates) (Alimdzhanov, R.A.)  
(Bronshtein, TS.G.)

SHTAKELBERG, A. A.  
*Albansky*

*Leninsky*

*D*

"Einige charakteristische Eigenheiten der Depterenfauna der Nordwestern von  
Europaisch-UdSSR.

report <sup>*submitted*</sup> ~~presented at~~ the Intl. Congress of Entomology, Vienna, Austria,  
17-25 August 1960